INDEX TO AUTHORS.

A

Arrhenius, Olof. Absorption of nutrients and plant growth in relation to hydrogen ion concentration, 81

B

Brody, Samuel, and **Ragsdale, Arthur C.** The equivalence of age in animals, 205

—, —, and **Turner, Charles W.** The effect of gestation on the rate of decline of milk secretion with the advance of the period of lactation, 777

—, —, and —. The rate of decline of milk secretion with the advance of the period of lactation, 441

—, —, and —. The rate of growth of the dairy cow. II. Growth in weight after the age of two years, 445

Brooks, S. C. Conductivity as a measure of vitality and death, 365

C

Cattell, Ware. See LILLIE and CATTELL, 807

Chambers, Robert. The mechanism of the entrance of sperm into the starfish egg, 821

—. A micro injection study on the permeability of the starfish egg, 189

— and **Sands, Harold C.** A dissection of the chromosomes in the pollen mother cells of *Tradescantia virginica* L., 815

Cohn, Edwin J., and **Hendry, Jessie L.** Studies in the physical chemistry of the proteins. II. The relation between the solubility of casein and its capacity to combine with base. The solubility of casein in systems containing the protein and sodium hydroxide, 521

Cole, William H. Circus movements of *Limulus* and the tropism theory, 417

Crozier, W. J. Cell penetration by acids. VI. The chloroacetic acids, 65

— and **Moore, A. R.** Homostrophic reflex and stereotropism in diplopods, 597

D

Davis, A. R. See HOAGLAND and DAVIS, 629

De Kruif, Paul H., and **Northrop, John H.** The stability of bacterial suspensions. IV. The combination of antigen and antibody at different hydrogen ion concentrations, 127

— and —. V. The removal of antibody from sensitized organisms, 139

F

Fenn, Wallace O. The adhesiveness of leucocytes to solid surfaces, 143

—. Effect of the hydrogen ion concentration on the phagocytosis and adhesiveness of leucocytes, 169

Fenn, Wallace O. The phagocytosis of solid particles. IV. Carbon and quartz in solutions of varying acidity, 311

H

Harvey, E. Newton. The permeability of cells for oxygen and its significance for the theory of stimulation, 215

—. Studies on bioluminescence. XV. Electroreduction of oxyluciferin, 275

Hecht, Selig. Sensory adaptation and the stationary state, 555

— and **Williams, Robert E.** The visibility of monochromatic radiation and the absorption spectrum of visual purple, 1

Hendry, Jessie L. See COHN and HENDRY, 521

Hitchcock, David I. The colloidal behavior of serum globulin, 35

—. The ionization of protein chlorides, 383

—. Membrane potentials in the Donnan equilibrium, 661

Hoagland, D. R., and **Davis, A. R.** The composition of the cell sap of the plant in relation to the absorption of ions, 629

Hussey, Raymond G. Further observations on the influence of salts when injected into the animal body, 359

— and **Northrop, John H.** A study of the equilibrium between the so called "antitrypsin" of the blood and trypsin, 335

— and **Thompson, William R.** The effect of radio-active radiations and x-rays on enzymes. I. The effect of radiations from radium emanation on solutions of trypsin, 647

—. See NORTHROP and HUSSEY, 353

I

Irwin, Marian. The behavior of chlorides in the cell sap of *Nitella*, 427

—. The penetration of dyes as influenced by hydrogen ion concentration, 727

—. The permeability of living cells to dyes as affected by hydrogen ion concentration, 223

J

Jacobs, M. H. The influence of ammonium salts on cell reaction, 181

K

Kunitz, M. See LOEB and KUNITZ, 665, 693

L

Lillie, R. S., and **Cattell, Ware.** The relation between the electrical conductivity of the external medium and the rate of cell division in sea urchin eggs, 807

Lipman, Charles B. See MEEK and LIPMAN, 195

Loeb, Jacques. Cataphoretic charges of collodion particles and anomalous osmosis through collodion membranes free from protein, 89

—. The influence of electrolytes on the cataphoretic charge of colloidal particles and the stability of their suspensions. I. Experiments with collodion particles, 109

—. II. Experiments with particles of gelatin, casein, and denatured egg albumin, 395

—. The influence of salts on the rate of diffusion of acid through collodion membranes, 255

—. Membrane potentials and cataphoretic potentials of proteins, 505

Loeb, Jacques. Sodium chloride and selective diffusion in living organisms, 231
—. Stability of suspensions of solid particles of proteins and protective action of colloids, 479
—. Theory of geotropism based on mass action, 853
—. Theory of regeneration based on mass action, 831
— and **Kunitz, M.** Valency rule and alleged Hofmeister series in the colloidal behavior of proteins. I. The action of acids, 665
— and —. II. The influence of salts, 693
—. See NORTHROP and LOEB, 581

M

Meek, Carolyn S., and **Lipman, Charles B.** The relation of the reaction and of salt content of the medium on nitrifying bacteria, 195
Moore, A. R. Galvanotropism in the earthworm, 453
—. Muscle tension and reflexes in the earthworm, 327
—. The reaction of *Nereis virens* to unilateral tension of its musculature, 451
—. See CROZIER and MOORE, 597

N

Northrop, John H. The inactivation of trypsin. IV. The adsorption of trypsin by charcoal, 751
—. The mechanism of the influence of acids and alkalies on the digestion of proteins by pepsin or trypsin, 263
—. Correction, 415
Northrop, John H., and **Hussey, Raymond G.** A method for the quantitative determination of trypsin and pepsin, 353
—. Note on the purification and precipitation of casein, 749
—. The stability of bacterial suspensions. VI. The influence of the concentration of the suspension on the concentration of salt required to cause complete agglutination, 605
— and **Loeb, Jacques.** The photochemical basis of animal heliotropism, 581
—. See DE KRUIF and NORTHROP, 127, 139
—. See HUSSEY and NORTHROP, 335
du Noüy, P. Lecomte. A new viscometer, 429

O

Osterhout, W. J. V. Exosmosis in relation to injury and permeability, 709
—. Some aspects of selective absorption, 225

P

Parker, G. H. The excretion of carbon dioxide by relaxed and contracted sea anemones, 45

R

Ragsdale, Arthur C. See BRODY and RAGSDALE, 205
—. See BRODY, RAGSDALE, and TURNER, 441, 445, 777
Ray, George B. Comparative studies on respiration. XXIV. The effects of chloroform on the respiration of dead and of living tissue, 469

Ray, George B. Comparative studies on respiration. XXV. The action of chloroform on the oxidation of some organic acids, 611

—. XXVI. The production of CO_2 from organic acids in relation to their iodine absorption, 623

—. XXVII. The mechanism of oxidation in relation to chloroform anesthesia, 741

S

Sands, Harold C. See CHAMBERS and SANDS, 815

Shackell, L. F. Studies in protoplasm poisoning. I. Phenols, 783

Sponsler, O. L. Structural units of starch determined by x-ray crystal structure method, 757

Stanton, Ralph E. The selective absorption of potassium by animal cells. III. The effect of hydrogen ion concentration upon the retention of potassium, 461

Starkey, Robert L. See WAKSMAN and STARKEY, 285

T

Thompson, William R. See HUSSEY and THOMPSON, 647

Turner, Charles W. See BRODY, RAGSDALE, and TURNER, 441, 445, 777

W

Waksman, Selman A., and **Starkey, Robert L.** On the growth and respiration of sulfur-oxidizing bacteria, 285

Williams Robert E. See HECHT and WILLIAMS, 1

INDEX TO SUBJECTS.

A

Absorption:
Iodine, by organic acids, relation of production of carbon dioxide (RAY) 623
Ion, relation of composition of cell sap of plant (HOAGLAND and DAVIS) 629
Nutrient, and plant growth in relation to hydrogen ion concentration (ARRHENIUS) 81
Potassium, by animal cells (STANTON) 461
Selective (OSTERHOUT) 225
Spectrum of visual purple (HECHT and WILLIAMS) 1

Acid (s):
Cell penetration (CROZIER) 65
Chloroacetic, cell penetration (CROZIER) 65
Colloidal behavior of proteins, action on, of (LOEB and KUNITZ) 665
Diffusion through collodion membranes, influence of salts on rate (LOEB) 255
Digestion of proteins by pepsin, influence on, of (NORTHROP) 263, 415
— — — — trypsin, influence on, of (NORTHROP) 263, 415
Organic, action of chloroform on oxidation (RAY) 611

Acid (s)—*continued:*
Organic, relation of iodine absorption to production of carbon dioxide from (RAY) 623

Acidity:
Phagocytosis of carbon in solutions of varying (FENN) 311
— — quartz in solutions of varying (FENN) 311

Adaptation:
Sensory, and stationary state (HECHT) 555

Adhesiveness:
Leucocyte, effect of hydrogen ion concentration (FENN) 169
—, to solid surfaces (FENN) 143

Adsorption:
Trypsin, by charcoal (NORTHROP) 751

Age:
Equivalence in animals (BRODY and RAGSDALE) 205

Agglutination:
Complete, influence of concentration of suspension on concentration of salt required for (NORTHROP) 605

Albumin:
Egg, denatured, particles (LOEB) 395

Alkali:
Digestion of proteins by pepsin, influence on, of (NORTHROP) 263, 415

Alkali—*continued:*
Digestion of proteins by trypsin, influence on, of (NORTHROP) 263, 415
Ammonium salts:
Cell reaction, influence on, of (JACOBS) 181
Anesthesia:
Chloroform, relation of oxidation (RAY) 741
Antibody:
Antigen and, combined at different hydrogen ion concentrations (DE KRUIF and NORTHROP) 127
Sensitized organisms, removal of antibody (DE KRUIF and NORTHROP) 139
Antigen:
Antibody and, combined at different hydrogen ion concentrations (DE KRUIF and NORTHROP) 127
Antitrypsin:
Blood, equilibrium between trypsin and (HUSSEY and NORTHROP) 335

B

Bacterium:
Nitrifying, influence of reaction of medium (MEEK and LIPMAN) 195
—, — — salt content of medium (MEEK and LIPMAN) 195
Sulfur-oxidizing, growth (WAKSMAN and STARKEY) 285
—, respiration (WAKSMAN and STARKEY) 285
Suspensions, stability (DE KRUIF and NORTHROP) 127, 139
—, — (NORTHROP) 605
Base:
Solubility of casein and capacity to combine with base (COHN and HENDRY) 521
Bioluminescence:
(HARVEY) 275
Blood:
Antitrypsin, equilibrium between trypsin and (HUSSEY and NORTHROP) 335

C

Carbon:
Phagocytosis in solutions of varying acidity (FENN) 311
Carbon dioxide:
Excretion by contracted sea anemones (PARKER) 45
— — relaxed sea anemones (PARKER) 45
Organic acids, relation of iodine absorption to production of carbon dioxide from (RAY) 623
Casein:
Combination with base, relation of solubility (COHN and HENDRY) 521
Particles (LOEB) 395
Precipitation (NORTHROP) 749
Purification (NORTHROP) 749
Solubility in systems containing casein and sodium hydroxide (COHN and HENDRY) 521
—, relation to capacity to combine with base (COHN and HENDRY) 521
Cataphoresis:
Collodion particles, cataphoretic charges (LOEB) 89
Colloidal particles, influence of electrolytes on cataphoretic charge (LOEB) 109, 395
Potentials of proteins (LOEB) 505
Cell:
Animal, selective absorption of potassium by (STANTON) 461

Cell—*continued:*
Division in sea urchin eggs, relation of electrical conductivity of external medium (LILLIE and CATTELL) 807
Living, permeability to dyes affected by hydrogen ion concentration (IRWIN) 223
Penetration by acids (CROZIER) 65
Permeability for oxygen (HARVEY) 215
— — —, significance for stimulation theory (HARVEY) 215
Pollen mother cells of *Tradescantia virginica*, dissection of chromosomes (CHAMBERS and SANDS) 815
Reaction, influence of ammonium salts (JACOBS) 181

Cell sap:
Nitella, chlorides (IRWIN) 427
Plant, relation of absorption of ions to composition (HOAGLAND and DAVIS) 629

Charcoal:
Trypsin absorbed by (NORTHROP) 751

Chloride(s):
Nitella cell sap (IRWIN) 427
Protein, ionization (HITCHCOCK) 383

Chloroacetic acids:
Cell penetration (CROZIER) 65

Chloroform:
Anesthesia, relation of oxidation (RAY) 741
Oxidation of organic acids, action on, of (RAY) 611
Respiration of dead tissue, effects on, of (RAY) 469
— — living tissue, effects on, of (RAY) 469

Chromosome:
Dissection, in pollen mother cells of *Tradescantia virginica* (CHAMBERS and SANDS) 815

Collodion:
Membranes free from protein, anomalous osmosis (LOEB) 89
—, influence of salts on rate of diffusion of acid (LOEB) 255
Particles (LOEB) 109
—, cataphoretic charges (LOEB) 89

Colloid:
Cataphoretic charge of colloidal particles, influence of electrolytes (LOEB) 109, 395
Hofmeister series in colloidal behavior of proteins (LOEB and KUNITZ) 665, 693
Protective action (LOEB) 479
Serum globulin, colloidal behavior (HITCHCOCK) 35
Stability of suspensions of colloidal particles (LOEB) 109, 395
Valency rule in colloidal behavior of proteins (LOEB and KUNITZ) 665, 693

Conductivity:
Electrical, of external medium, relation to rate of cell division in sea urchin eggs (LILLIE and CATTELL) 807
Vitality and death, conductivity as measure of (BROOKS) 365

Crystal:
Roentgen ray crystal structure method for determining structural units of starch (SPONSLER) 757

D

Diffusion:
Acid, through collodion membranes, influence of salts on rate (LOEB) 255
Selective, in living organisms, influence of sodium chloride (LOEB) 231
Digestion:
Protein, by pepsin, influence of acids (NORTHROP) 263, 415
—, — —, — of alkalies (NORTHROP) 263, 415
—, — trypsin, influence of acids (NORTHROP) 263, 415
—, — —, — of alkalies (NORTHROP) 263, 415
Diplopod:
Homostrophic reflex and stereotropism (CROZIER and MOORE) 597
Division:
Cell, in sea urchin eggs, relation of electrical conductivity of external medium (LILLIE and CATTELL) 807
Donnan:
Equilibrium. *See* Equilibrium.
Dye:
Penetration, influence of hydrogen ion concentration (IRWIN) 727
Permeability of living cells affected by hydrogen ion concentration (IRWIN) 223

E

Earthworm:
Galvanotropism (MOORE) 453
Earthworm—*continued:*
Muscle tension (MOORE) 327
Reflexes (MOORE) 327
Egg:
Albumin, denatured, particles (LOEB) 395
Sea urchin, relation of electrical conductivity of external medium to rate of cell division (LILLIE and CATTELL) 807
Starfish, entrance of sperm (CHAMBERS) 821
—, micro injection study on permeability (CHAMBERS) 189
Electrical:
Conductivity of external medium, relation to rate of cell division in sea urchin eggs (LILLIE and CATTELL) 807
Electrolyte:
Cataphoretic charge of colloidal particles, influence on, of (LOEB) 109, 395
Stability of suspensions of colloidal particles, influence on, of (LOEB) 109, 395
Electroreduction:
Oxyluciferin (HARVEY) 275
Enzyme:
Radioactive radiations, effect of, on (HUSSEY and THOMPSON) 647
Roentgen rays, effect of, on (HUSSEY and THOMPSON) 647
Equilibrium:
Antitrypsin of blood and trypsin (HUSSEY and NORTHROP) 335
Donnan, membrane potentials (HITCHCOCK) 661

Excretion:
Carbon dioxide, by contracted sea anemones (PARKER) 45
— —, — relaxed sea anemones (PARKER) 45
Exosmosis:
Injury and permeability, relation (OSTERHOUT) 709

G

Galvanotropism:
Earthworm (MOORE) 453
Gelatin:
Particles (LOEB) 395
Geotropism:
(LOEB) 853
Gestation:
Milk secretion, effect of gestation on rate of decline with advance of period of lactation (BRODY, RAGSDALE, and TURNER) 777
Globulin:
Serum, colloidal behavior (HITCHCOCK) 35
Growth:
Bacteria, sulfur-oxidizing (WAKSMAN and STARKEY) 285
Dairy cow, rate (BRODY, RAGSDALE, and TURNER) 445
Plant, absorption of nutrients and, in relation to hydrogen ion concentration (ARRHENIUS) 81
Weight, of dairy cow (BRODY, RAGSDALE, and TURNER) 445

H

Heliotropism:
Animal, photochemical basis (NORTHROP and LOEB) 581
Hofmeister series:
Colloidal behavior of proteins (LOEB and KUNITZ) 665, 693
Hydrogen ion:
Concentration, effect on adhesiveness of leucocytes (FENN) 169
—, — — phagocytosis of leucocytes (FENN) 169
—, — — retention of potassium by animal cells (STANTON) 461
—, influence on penetration of dyes (IRWIN) 727
—, permeability of living cells to dyes affected by (IRWIN) 223
—, relation of absorption of nutrients and plant growth (ARRHENIUS) 81
Concentrations, different, antigen and antibody combined at (DE KRUIF and NORTHROP) 127

I

Inactivation:
Trypsin (NORTHROP) 751
Injury:
Exosmosis, relation (OSTERHOUT) 709
Iodine:
Absorption by organic acids, relation of carbon dioxide production (RAY) 623
Ion:
Absorption, relation of composition of cell sap of plant (HOAGLAND and DAVIS) 629
Protein chlorides, ionization (HITCHCOCK) 383

L

Lactation:
Period, effect of gestation on rate of decline of milk secretion with advance of (BRODY, RAGSDALE, and TURNER) 777
—, rate of decline of milk secretion with advance of (BRODY, RAGSDALE, and TURNER) 441

Leucocyte:
Adhesiveness, effect of hydrogen ion concentration (FENN) 169
— to solid surfaces (FENN) 143
Phagocytosis, effect of hydrogen ion concentration (FENN) 169

Limulus:
Circus movements (COLE) 417

M

Medium:
Electrical conductivity, relation to rate of cell division in sea urchin eggs (LILLIE and CATTELL) 807
Reaction, influence on nitrifying bacteria (MEEK and LIPMAN) 195
Salt content, influence on nitrifying bacteria (MEEK and LIPMAN) 195

Membrane:
Collodion, free from protein, anomalous osmosis (LOEB) 89
—, influence of salts on rate of diffusion of acid (LOEB) 255
Potentials in Donnan equilibrium (HITCHCOCK) 661
— of proteins (LOEB) 505

Milk:
Secretion, effect of gestation on rate of decline with advance of period of lactation (BRODY, RAGSDALE, and TURNER) 777
—, rate of decline with advance of period of lactation (BRODY, RAGSDALE, and TURNER) 441

Monochromatic:
Radiation, visibility (HECHT and WILLIAMS) 1

Movement:
Circus, of *Limulus* (COLE) 417

Muscle:
Tension in earthworm (MOORE) 327
—, unilateral, reaction of *Nereis virens* (MOORE) 451

N

Nereis:
virens, reaction to unilateral tension of musculature (MOORE) 451

Nitella:
Chlorides in cell sap (IRWIN) 427

Nitrifying bacteria:
Reaction of medium, influence of, on (MEEK and LIPMAN) 195
Salt content of medium, influence of, on (MEEK and LIPMAN) 195

Nutrition:
Absorption of nutrients and plant growth in relation to hydrogen ion concentration (ARRHENIUS) 81

O

Organic:
Acids, action of chloroform on oxidation (RAY) 611

Organic—*continued:*
Acids, relation of iodine absorption to production of carbon dioxide from (RAY) 623
Organism:
Living, influence of sodium chloride on selective diffusion (LOEB) 231
Sensitized, removal of antibody (DE KRUIF and NORTHROP) 139
Osmosis:
Anomalous, through collodion membranes free from protein (LOEB) 89
Oxidation:
Chloroform anesthesia, relation (RAY) 741
Organic acids, action of chloroform (RAY) 611
Sulfur-oxidizing bacteria, growth (WAKSMAN and STARKEY) 285
— —, respiration (WAKSMAN and STARKEY) 285
Oxygen:
Cell permeability (HARVEY) 215
— —, significance for stimulation theory (HARVEY) 215
Oxyluciferin:
Electroreduction (HARVEY) 275

P

Particle(s):
Casein (LOEB) 395
Collodion (LOEB) 109
—, cataphoretic charges (LOEB) 89
Colloidal, influence of electrolytes on cataphoretic charge (LOEB) 109, 395
—, stability of suspensions (LOEB) 109, 395
Particle(s)—*continued:*
Egg albumin, denatured (LOEB) 395
Gelatin (LOEB) 395
Solid, of proteins, stability of suspensions (LOEB) 479
—, phagocytosis (FENN) 311
Penetration:
Cell, by acids (CROZIER) 65
Dye, influence of hydrogen ion concentration (IRWIN) 727
Pepsin:
Determination, quantitative (NORTHROP and HUSSEY) 353
Protein digestion, influence of acids (NORTHROP) 263, 415
— —, — — alkalies (NORTHROP) 263, 415
Permeability:
Cell, for oxygen (HARVEY) 215
—, — —, significance for stimulation theory (HARVEY) 215
—, living, permeability to dyes affected by hydrogen ion concentration (IRWIN) 223
Exosmosis, relation (OSTERHOUT) 709
Starfish egg, micro injection study (CHAMBERS) 189
Phagocytosis:
Leucocyte, effect of hydrogen ion concentration (FENN) 169
Particles, solid (FENN) 311
Phenol(s):
Protoplasm poisoned by (SHACKELL) 783

Photochemical:
Heliotropism, animal, photochemical basis (NORTHROP and LOEB) 581
Plant:
Cell sap, relation of absorption of ions to composition (HOAGLAND and DAVIS) 629
Growth, absorption of nutrients and, in relation to hydrogen ion concentration (ARRHENIUS) 81
Poison:
Protoplasm poisoning (SHACKELL) 783
Pollen:
Dissection of chromosomes in pollen mother cells of *Tradescantia virginica* (CHAMBERS and SANDS) 815
Potassium:
Absorption, selective, by animal cells (STANTON) 461
Retention by animal cells, effect of hydrogen ion concentration (STANTON) 461
Potential:
Cataphoretic, of proteins (LOEB) 505
Membrane, in Donnan equilibrium (HITCHCOCK) 661
—, of proteins (LOEB) 505
Precipitation:
Casein (NORTHROP) 749
Protection:
Colloids, protective action (LOEB) 479
Protein:
Casein solubility in systems containing casein and sodium hydroxide (COHN and HENDRY) 521
Protein—*continued:*
Cataphoretic potentials (LOEB) 505
Chemistry, physical (COHN and HENDRY) 521
Chlorides, ionization (HITCHCOCK) 383
Colloidal behavior, Hofmeister series (LOEB and KUNITZ) 665, 693
— —, valency rule (LOEB and KUNITZ) 665, 693
Digestion by pepsin, influence of acids (NORTHROP) 263, 415
— — —, — of alkalies (NORTHROP) 263, 415
— — trypsin, influence acids (NORTHROP) 263, 415
— — —, — of alkalies (NORTHROP) 263, 415
Membrane potentials (LOEB) 505
Osmosis, anomalous, through collodion membranes free from (LOEB) 89
Stability of suspensions of solid particles (LOEB) 479
Protoplasm:
Poisoning (SHACKELL) 783
Purification:
Casein (NORTHROP) 749
Purple:
Visual, absorption spectrum (HECHT and WILLIAMS) 1

Q

Quartz:
Phagocytosis in solutions of varying acidity (FENN) 311

R

Radiation:
Monochromatic, visibility (HECHT and WILLIAMS) 1

Radiation—*continued:*
Radioactive, effect on enzymes (HUSSEY and THOMPSON) 647
Radium emanation, effect on solutions of trypsin (HUSSEY and THOMPSON) 647
Radioactivity:
Radiations, radioactive, effect on enzymes (HUSSEY and THOMPSON) 647
Radium:
Emanation, effect of radiations on solutions of trypsin (HUSSEY and THOMPSON) 647
Reaction:
Cell, influence of ammonium salts (JACOBS) 181
Medium, influence on nitrifying bacteria (MEEK and LIPMAN) 195
Nereis virens, to unilateral tension of musculature (MOORE) 451
Reflex:
Earthworm (MOORE) 327
Homostrophic, and stereotropism in diplopods (CROZIER and MOORE) 597
Regeneration:
(LOEB) 831
Respiration:
(RAY) 469, 611, 623, 741
Bacteria, sulfur-oxidizing (WAKSMAN and STARKEY) 285
Tissue, dead, effects of chloroform (RAY) 469
—, living, effects of chloroform (RAY) 469
Retention:
Potassium, by animal cells, effect of hydrogen ion concentration (STANTON) 461
Roentgen rays:
Crystal structure method for determining structural units of starch (SPONSLER) 757
Enzymes, effect on, of (HUSSEY and THOMPSON) 647

S

Salt(s):
Acid diffusion through collodion membranes, influence of salts on rate (LOEB) 255
Colloidal behavior of proteins, action on, of (LOEB and KUNITZ) 693
Concentration required to cause complete agglutination, influence of concentration of suspension (NORTHROP) 605
Content of medium, influence on nitrifying bacteria (MEEK and LIPMAN) 195
Injected into animal body (HUSSEY) 359
Sea anemone:
Carbon dioxide excretion by contracted (PARKER) 45
— — — — relaxed (PARKER) 45
Sea urchin:
Eggs, relation of electrical conductivity of external medium to rate of cell division (LILLIE and CATTELL) 807
Secretion:
Milk, effect of gestation on rate of decline with advance of period of lactation (BRODY, RAGSDALE, and TURNER) 777
—, rate of decline with advance of period of lactation (BRODY, RAGSDALE, and TURNER) 441

Sensitivity:
Adaptation, sensory, and stationary state (HECHT) 555
Sensitization:
Antibody removed from sensitized organisms (DE KRUIF and NORTHROP) 139
Serum:
Globulin, colloidal behavior (HITCHCOCK) 35
Sodium chloride:
Selective diffusion in living organisms, influence on, of (LOEB) 231
Sodium hydroxide:
Casein solubility in systems containing casein and (COHN and HENDRY) 521
Solubility:
Casein, in systems containing casein and sodium hydroxide (COHN and HENDRY) 521
—, relation to capacity to combine with base (COHN and HENDRY) 521
Solution:
Phagocytosis of carbon in solutions of varying acidity (FENN) 311
— — quartz in solutions of varying acidity (FENN) 311
Trypsin, effect of radiations from radium emanation (HUSSEY and THOMPSON) 647
Spectrum:
Absorption, of visual purple (HECHT and WILLIAMS) 1
Sperm:
Entrance into starfish egg (CHAMBERS) 821
Starch:
Structural units determined by x-ray crystal structure method (SPONSLER) 757
Starfish:
Egg, entrance of sperm (CHAMBERS) 821
—, micro injection study on permeability (CHAMBERS) 189
Stereotropism:
Diplopod, homostrophic reflex and (CROZIER and MOORE) 597
Stimulation:
Theory, significance of permeability of cells for oxygen (HARVEY) 215
Sulfur:
-oxidizing bacteria, growth (WAKSMAN and STARKEY) 285
— —, respiration (WAKSMAN and STARKEY) 285
Suspension:
Bacterial, stability (DE KRUIF and NORTHROP) 127, 139
—, — (NORTHROP) 605
Colloidal particles, stability (LOEB) 109, 395
Concentration, influence on concentration of salt required to cause complete agglutination (NORTHROP) 605
Solid particles of proteins, stability (LOEB) 479

T

Tension:
Muscle, in earthworm (MOORE) 327
—, unilateral, reaction of *Nereis virens* (MOORE) 451
Tissue:
Dead, effects of chloroform on respiration (RAY) 469
Living, effects of chloroform on respiration (RAY) 469

Tradescantia:
virginica, dissection of chromosomes in pollen mother cells (CHAMBERS and SANDS) 815

Tropism:
Circus movements of *Limulus* explained by (COLE) 417

Trypsin:
Absorption by charcoal (NORTHROP) 751
Determination, quantitative (NORTHROP and HUSSEY) 353
Equilibrium between antitrypsin of blood and (HUSSEY and NORTHROP) 335
Inactivation (NORTHROP) 751
Protein digestion, influence of acids (NORTHROP) 263, 415
— —, — — alkalies (NORTHROP) 263, 415
Solutions, effect of radiations from radium emanation (HUSSEY and THOMPSON) 647

V

Valency:
Rule in colloidal behavior of proteins (LOEB and KUNITZ) 665, 693

Virens:
Nereis, reaction to unilateral tension of musculature (MOORE) 451

Virginica:
Tradescantia, dissection of chromosomes in pollen mother cells (CHAMBERS and SANDS) 815

Viscometer:
(DU NOÜY) 429

W

Weight:
Growth in dairy cow (BRODY, RAGSDALE, and TURNER) 445

X

X-rays:
See Roentgen rays.